DSSPD

Hydrologic Engineering Center
Data Storage System
Paired Data Entry Program

User's Manual

Version 3.4
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DSSPD

1. Introduction

DSSPD is a program for entering paired data into a HEC-DSS data base file. Paired data is a group of data that represents a two variable relationship. An example is data that makes up a curve, such as a rating table or a flow-frequency curve. Several curves may be stored in the same record if one of the variables is the same. For example, several frequency-damage curves may be stored in the same record, where the curves may be residential, commercial, etc. A scale associated with the variable may be one of three types: linear, logarithmic, or probability.

DSSPD is a prompt driven program that requests information from the user. It may be run interactively (input from the keyboard), or in a batch mode with input from a file. To execute DSSPD in a batch mode, the input that would normally be typed interactively are placed into a file, then the program is executed with that file specified as input (e.g., "`dsspd input=myfile`").

If desired, all information entered at the keyboard can be copied into a "log file" by specifying the log file name on the command line ("`dsspd logfile=mylog`"). If an abort or some other error should occur, DSSPD may be rerun using the logfile as the input (e.g., "`dsspd input=mylog`").

Rating table data may be entered with the "r" option. This allows the entry of additional information that is used by a few programs (such as DSSMATH). This information consists of an offset, shift, and datum, plus whether the transformation is linear or log-log. To initiate the "r" option, enter "`dsspd -r`" when executing dsspd.

2. Use

2.1 The program is initiated by entering its name (and the directory of where the program is located, if needed):

```
dsspd
```

If rating table information is to be entered, use the "r" option"

```
dsspd -r
```

2.2 Optional parameters that may be specified on the execution line are:

Name	Default	Description
INPUT	standard in	Command input file
OUTPUT	standard out	Output file
DSSFILE	none	DSS file
LOGFILE	SCRATCH.002	Copy of input commands

The execution line parameters may be abbreviated to 2 characters (INPUT can be IN).

If a command input file is specified on the execution line, it should contain DSSPD input as if it were being entered at the keyboard (NOT just paired data). If a DSS file name is provided on the execution line, the program will not ask for it.

3. Command Input

3.1 DSSPD prompts with "Enter DSS File Name", whereby the user enters the name of the DSS file to use. If the file does not exist, it will be created.

3.2 "Enter Pathname, or Pathname Part(s), or FINISH".
The full six part pathname, including slashes (/), may be given, or individual pathname parts may be specified. To enter individual pathname parts, type the part letter (A, B, C, D, E, or F) followed by an equal sign "=" then the part. One to six parts may be entered, separated by a comma or a blank space. If a pathname had been given earlier, then those parts not specified will remain the same as in the earlier pathname. Upon the completion of entering all data, typing "FINISH" at this point will terminate the program.

3.3 "Enter the number of curves"
Enter the number of curves this pathname record will contain (typically 1). Some data, such as frequency-damage curves, may have more than one curve stored in the same record.

3.4 "Enter the units of the (independent axis) data (e.g., CFS, FEET)"
Enter the units for the first portion of the "C" part of the pathname. For example, if the "C" part is "STAGE-FLOW", the units may be "FEET". The units may be from zero to eight characters long.

3.5 "Enter the data type for the (independent axis) data (e.g., UNT, LOG)"
Enter the data type for this axis. Typically "UNT" for unitary or "LOG" for logarithmic. The data type may be from zero to four characters long.

3.6 "Enter the units of the (dependent axis) data"
Enter the units for the second portion of the "C" part of the pathname. For example, if the "C" part is STAGE-FLOW, the units would be "CFS". The units may be from zero to eight characters long.

3.7 "Enter the data type for the (dependent axis) data"
Enter the data type for this axis (i.e., the second portion of the "C" part of the pathname). The data type may be from zero to four characters long. If more than one curve is to be entered under this pathname, the units and type will be repeated for each curve.

3.8 "Enter the Offset, Shift, and Datum (or blank for all zeros)"
(Asked when the rating table option is used.) If the rating table has an offset, shift or datum associated with it, enter that information here separated by commas or blanks. A blank line will cause zeros to be entered for these items.

3.9 "Enter the Transformation Type (LINLIN or LOGLOG)"
(Asked when the rating table option is used.) If the rating table is logarithmic, enter "LOGLOG". If it is linear enter "LINLIN".

3.10 "For DSPLAY plots, do you want the (independent axis) data
to be on the X (horizontal) axis, or on the Y (vertical) axis?"
For the DSS graphics program "DSPLAY", if the first portion of the "C" part of the pathname is to be on the horizontal axis, enter a "Y". If the second portion of the "C" part of the pathname is to be on the horizontal axis, enter a "X".

3.11 "Enter a label for the first dependent curve, or
all labels for all curves, or blank to store no labels"
A twelve character label may be specified for providing additional information in the legend in DSPLAY plots. Such a label for a stage-damage curve may be the type of damage, e.g., COMMERCIAL for commercial damage. If no label is desired, just press the carriage return.

3.12 "Enter data in pairs (i.e., X, Y)
Enter END at the beginning of the line when done."
Enter the actual data pairs in sequential order in a free format mode. The data is to be entered with one pair (or set for multiple curves) per line, separated by a comma or a blank. It may be given in an integer or real format, but not in scientific notation. If there is more than one curve, enter the additional Y values following the primary Y value.

When the entry of data for this pathname has been completed, type "END" to store the data in the HEC-DSS data file. After this, the program will return to step 2, where a new pathname may be specified, or the program may be terminated by entering "FINISH".

Example 1

Store a stage-damage curve for the reach named "GLXR7" in the Kanawha river basin. This data was developed on January 5, 1993.

```
>dsspd

     DSSPD:  3.4.0 ;  March, 1995

Enter DSS File Name
File = db
   -----DSS---ZOPEN:  New File Opened,  File: db.dss
                      Unit:  71;  DSS Version: 6-JB

Enter Pathname, or Pathname Part(s), or FINISH
I>/KANAWHA/GLXR7/STAGE-DAMAGE//05JAN93//
/KANAWHA/GLXR7/STAGE-DAMAGE//05JAN93//
Enter the number of DAMAGE curves
Number of Curves: 2
Enter the units of the STAGE data (e.g., CFS, FEET)
Units: FEET
Enter the data type for the STAGE data (e.g., UNT, LOG)
Type: UNT
Enter the units of the DAMAGE data
Units: $1000
Enter the data type for the DAMAGE data
Type: UNT
For DSPLAY plots, do you want the STAGE data
to be on the X (horizontal) axis, or on the Y (vertical) axis?
Enter X or Y:  Y
Enter a label for the first DAMAGE curve, or
all labels for all curves, or blank to store no labels
Label: RESIDENTIAL
Enter a label for DAMAGE curve  2
Label: COMMERCIAL
Enter data in pairs (i.e., STAGE, DAMAGE1, DAMAGE2)
Enter END at the beginning of the line when done.
I>3., 0, 0
I>5.0, 0, 0
I>6.5, .5, 2.
I>7.5, 1., 3.
I>9.0, 12., 5.
I>10.5, 18., 5.
I>12.0, 45., 5.
I>END
-----DSS---ZWRITE:  /KANAWHA/GLXR7/STAGE-DAMAGE//05JAN93//

 Enter Pathname, or Pathname Part(s), or FINISH
I>FINISH

  -----DSS---ZCLOSE Unit:  71,   File: db.dss
             Pointer Utilization:  0.25
             Number of Records:      1
             File Size:     11.5  Kbytes
             Percent Inactive:   0.0
```

Example 2

Store the rating curve for the reach named "GLXR7" in the Kanawha river basin. This data comes from the USGS and was computed on April 2, 1982.

```
>dsspd -r

    DSSPD:  3.4.0 ;  March, 1995
    Rating Table Entry Version.

Enter DSS File Name
File = db
    -----DSS---ZOPEN:  Existing File Opened,  File: db.dss
                       Unit:  71;  DSS Version: 6-JB

Enter Pathname, or Pathname Part(s), or FINISH
I>/KANAWHA/GLXR7/STAGE-FLOW//02APR82/USGS 10/
/KANAWHA/GLXR7/STAGE-FLOW//02APR82/USGS 10/
Enter the number of FLOW curves
Number of Curves: 1
Enter the units of the STAGE data (e.g., CFS, FEET)
Units: FEET
Enter the data type for the STAGE data (e.g., UNT, LOG)
Type: UNT
Enter the units of the FLOW data
Units: CFS
Enter the data type for the FLOW data
Type: UNT
For DSPLAY plots, do you want the STAGE data
to be on the X (horizontal) axis, or on the Y (vertical) axis?
Enter X or Y: Y
Enter the Offset, Shift, and Datum (or blank for all zeros)
I>0, 2.4, 937
Enter the Transformation Type (e.g., LINLIN or LOGLOG)
I>LINLIN
Enter a label for the FLOW curve (or blank to store no label)
Label:
Enter data in pairs (i.e., STAGE, FLOW)
Enter END at the beginning of the line when done.
I>0.6, 250
I>1.,0 85
I>1.,7 300
I>3.0, 570
I>5.0, 930
I>8.,0 1350
I>END
-----DSS---ZWRITE: /KANAWHA/GLXR7/STAGE-FLOW//02APR82/USGS 10/

Enter Pathname, or Pathname Part(s), or FINISH
I>FIN

   -----DSS---ZCLOSE Unit:  71,   File: db.dss
              Pointer Utilization:  0.25
              Number of Records:      2
              File Size:     11.8  Kbytes
              Percent Inactive:   0.0
```